



FACT SHEET

Integrated Coastal Management for Disaster Mitigation



A. White, USAID Program Integrator

Local government officials determining the boundaries of their jurisdiction for coastal management plan implementation.

What is Integrated Coastal Management?

Integrated coastal management (ICM) is increasingly an accepted management framework to address coastal and marine environmental problems, conflicts and management needs. A primary goal of most ICM and related programs is to achieve sustainable use of coastal resources and to ensure that coastal communities plan for and minimize, or mitigate, the impacts of development and natural hazards. The U.S. Indian Ocean Tsunami Warning System (IOTWS) Program is adopting ICM as an approach to mitigate disasters in coastal areas through ongoing planning and implementation processes.

ICM provides a framework and institutional arrangement within which coastal mitigation measures can be planned, implemented, monitored and improved over time. The ICM framework requires integration of management efforts among government agencies and private organizations at both the national and local levels. It also requires cross-sector communication and coordination to ensure that relevant coastal stakeholders are involved in the planning and implementation process. Prerequisites for effective ICM include:

- Policies and institutions that support coastal management
- Linkages between management and improved biophysical, social and economic conditions
- A process for stakeholder involvement in decision-making (both public and private sectors)
- Capacity for coastal law enforcement
- Durable institutions that persist over time
- Mechanisms for education and raising awareness to accomplish tasks.

What constitutes an ICM program with appropriate coastal mitigation measures?

An ICM program at the national or sub-national level will include the following basic ingredients. It may be developed over one or more years—depending on its starting point.

For more information on ICM contact

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For a more comprehensive overview of ICM

Go to
<http://www.oneocean.org>

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- **Concerned institutions plan, allocate budgets and dedicate personnel.** From national to village levels, concerned government institutions must develop ICM plans to address existing and potential issues and allocate resources to implement the plans.
- **Core group formation.** At the local community level where ICM and coastal mitigation measures are implemented, core management groups need to be formed that include representatives from the stakeholder community and the government sector, as appropriate.
- **Participatory implementation and monitoring process.** An essential part of ICM is that the planning, implementation and monitoring is participatory so that stakeholders are engaged and learn from doing. This is especially true for local community-based programs but also for those implemented by local and national government agencies. Monitoring should include resource and land use assessments among others.
- **Coastal mitigation measures within ICM.** The range of coastal mitigation measures is extensive. Those most appropriate to mitigate the impacts of human development and natural hazards in coastal areas include:
 - Coastal land-use setbacks and guidelines
 - Sustainable resource use plans and guidelines (fisheries, coastal and marine ecosystems, species)
 - Coastal land use zoning and marine protected areas
 - Coastal law enforcement mechanisms in place
 - Preparation for coastal disasters undertaken

Benefits of effective ICM

The benefits of ICM are far reaching. Key benefits include:

- Coastal land use is planned and controlled to minimize negative impacts on coastal habitats, ecosystems and aesthetic values
- Coastal and marine resources are sustainable and not overexploited
- Contingency for natural disasters are to incorporated in ICM plans so that loss of life and damage to environment is minimized
- Environmental and human community resilience is improved
- An institutional and continuous function of government—at the local and national level is sustainable
- A flexible and dynamic approach is developed so that adaptation occurs in response to changing issues and events.

About the US Indian Ocean Tsunami Warning System (IOTWS) Program

The US IOTWS Program is part of the international effort to develop tsunami warning system capabilities in the Indian Ocean following the December 2004 tsunami disaster. The US program adopts an “end-to-end” approach—addressing regional, national, and local aspects of a truly functional warning system—along with multiple other hazards that threaten communities in the region. In partnership with the international community, national governments, and other partners, the US program offers technology transfer, training, and information resources to strengthen the tsunami warning and preparedness capabilities of national and local stakeholders in the region. For more information please visit www.iotws.org.